

Work Order ID 163253

163253

Page 1

Tuesday, June 27, 2017 10:01:21 AM

Item ID: D2500-1-100

Revision ID:

Item Name: Skidtube Extrusion

Start Date: 6/27/2017 Start Qty: 90.00

Required Date: 7/11/2017 Req'd Qty: 90.00

Reference:

Accept ~~13~~
96

N9000040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

JUN 28 2017

Approvals: Process Plan: _____ Date: JUN 27 2017

Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2500	RevH								

100

0.00

100

Purchasing

Purchasing

PURCHASING

Memo

Issue P/O:

- 36859
- a) Extrude as per Dwg D2500
 - b) Material: 6061-T6 (QQ-A-200/8)
 - c) Minimum yield tensile strength = 35 ksi
 - d) Minimum ultimate tensile strength = 38 ksi
 - e) Minimum elongation = 8%
 - f) Order at 100" long
 - g) Bon L Canada Inc. tool # 897105
 - h) To be packed per DSK 066
 - i) Pull test to ASTM standard B221 required.
 - j) Material certification is required

EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS.

MUST BE WELL PACKAGE, IF NOT IT WILL BE REFUSE

96

JUN 28 2017

DAS
13
~~13~~

163253

Tuesday, June 27, 2017 10:01:21 AM

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

90

90

Customer:

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

**Insp.
Stamp**

0.00

110

Packaging

Memo

0.00

Packaging

Ensure material certification is attached

0.00

120

QC

Memo

0.00

Quality Control

Check Pull test per Dwg D2500 for compliance page attached. Check hardness with Webster tester

Identify as per dwg & Stock Location: Hall

0.00

130

Packaging

Memo

0.00

Packaging

Work Order ID 163253

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Tuesday, June 27, 2017 10:01:21 AM

Item ID: D2500-1-100

Accept

N9000040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Skidtube Extrusion

Start Date: 6/27/2017 Start Qty: 90.00

90

Cust Item ID:

Required Date: 7/11/2017 Req'd Qty: 90.00

90

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

SEP 11 2017

DAS
21
9-89

Picklist Print

Tuesday, June 27, 2017 10:01:24 AM

Page 1

Work Order ID: 163253

163253

Parent Item: D2500-1-100

D2500-1-100

Parent Item Name: Skidtube Extrusion

Start Date: 6/27/2017

Required Date: 7/11/2017

Start Qty: 90.00

Required Qty: 90.00

Comments: IPP: A05.11.14New Issue KJ/JLMIPP Rev:B as per dwg revH DD
verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2500-1-100P *D2500-1-100P* Skidtube Extrusion		Purchased	No			110	Each	0.0000	1 **	90 45		AUG 16 2017	DAK JLB

SPECIFICATION CONTROL DRAWING

D2500-1-XXX EXTRUSION & D2500-3-XXX EXTRUSION

NOTES:

1) MATERIAL: 6061-T6 ALUMINUM PER QQ-A-200/8 OR AMS-QQ-A-200/8 OR ASTM B221

MINIMUM TENSILE YIELD STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
MINIMUM ELONGATION = 8%

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE ABOVE MINIMUM MECHANICAL PROPERTIES

2) FINISH: N/A

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: IDENTIFY WITH DART B/N USING FINE POINT PERMANENT INK MARKER

7) WEIGHT: D2500-1 = 0.143 lb/in, D2500-3 = 0.066 lb/in

8) FOR D2500-1 PART NUMBER IS D2500-1-XXX WHERE XXX IS CUT LENGTH (EX. D2500-1-190 IS 190" LONG). D2500-1 EXTRUSION MANUFACTURED FROM:

- A) BON L DIE # 897105 -> PREFERRED
- B) CARADON MIDEAST DIE # PAH-28030
- C) CARADON MTL DIE # MH-18868

9) FOR D2500-3, PART NUMBER IS D2500-3-XXX WHERE XXX IS CUT LENGTH IN INCHES (EX. D2500-3-100 IS 100" LONG). D2500-3 EXTRUSION MANUFACTURED FROM:

- A) CARADON INDALEX DIE # MS-18867

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 163253 MW
1706-27

RELEASED
2010-02-03
MP

H	REDRAW & REFORMAT DWG; CORRECT BON L DIE # TYPO (ZN B8-1), ADD AMS & ASTM MAT'L OPTION (ZN D8-1), TOLERANCES NOW PER CARADON DWG (SHT 2)	CP	09.07.16
G	ADD DIE NUMBERS & 'DIMS IN INCHES' NOTES	PH	07.04.17
F	CHANGE MAT. TO 6061-T6	DS	97.09.29
E	CHANGE MATERIAL TEMPER	DS	96.10.24
D	ADD MATERIAL PROPERTIES	DS	96.10.07
C	ADD D2500-3 WEB	BW	96.04.26
B	CHANGE INTERNAL WEB	DS	96.03.24
A	NEW ISSUE	DS	96.03.19
REV.	DESCRIPTION	BY	DATE
DESIGN	1	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D2500 REV. H SHEET 1 OF 2 TITLE EXTRUSION SCALE NTS COPYRIGHT © 1996 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	
DRAWN	9		
CHECKED	PH		
MFG. APPR.	ND		
APPROVED	NAH		
DE APPR.	NAH		
DATE	09.07.16		

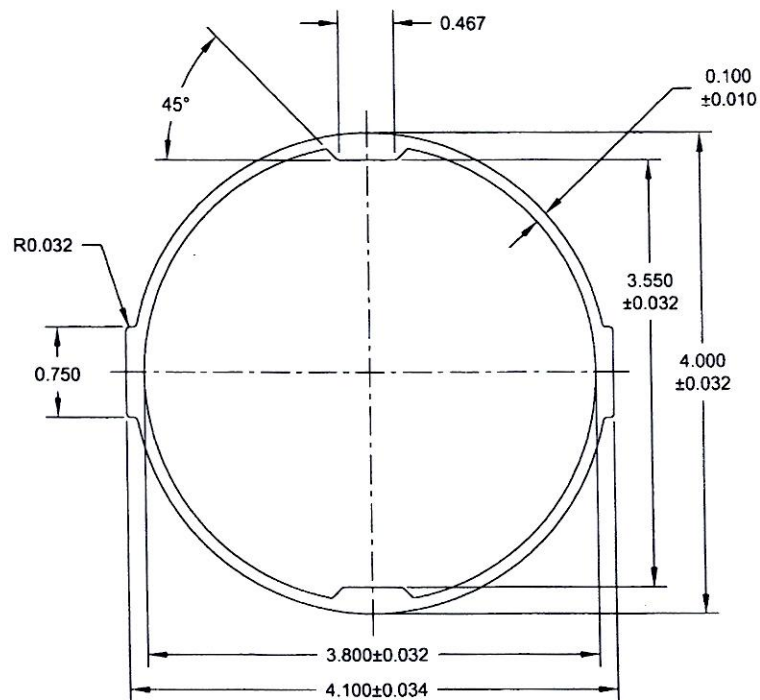
8 7 6 5 4 3 2 1

D

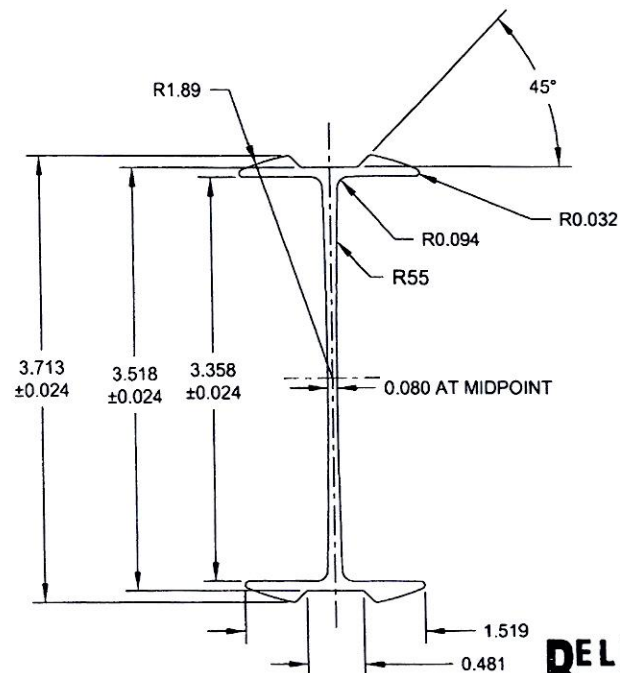
C

B

A



D2500-1



D2500-3

RELEASED
2010-02-02
MAP

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D2500	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		EXTRUSION	NTS
DATE	09.07.16	COPYRIGHT © 1996 BY DART AEROSPACE LTD THIS DOCUMENT IS PRESENTED AND SUPPLIED ON THE UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1

**SIGNATURE ALUMINUM CANADA**1850 CLEMENTS RD
PICKERING, ON L1W 3R8**CERTIFICATE OF COMPLIANCE**

Cert Date	Cert No.	Sales Order	Page
08/09/2017	5442173	128641	1
Cust PO	B/L No	Lot	Date
PO36859	033221	885973	08/13/17

Sold To	Ship To
46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA	46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA

Item No	Part No	Item Description	Cust Part
001	DAA-897105-3	100" MILL 6061 T6	D2500-1-100
Gross Weight	642 LBS		
Net Qty	611 LBS 45 PCS 2 PKGS		
Specification	Die Desc		
AMS-QQ-A-200/8 & ASTM B221-08			

Mechanical Tests:

<u>Tensile</u>	<u>Yield</u>	<u>% Elongation</u>	<u>Conductivity</u>	<u>HRE</u>
MPA / KSI	MPA / KSI			
288.3 / 41.8	253.1 / 36.7	9.2	N/A	93

Chemical Analysis:

<u>Si</u>	<u>Fe</u>	<u>Cu</u>	<u>Mn</u>	<u>Mg</u>	<u>Cr</u>	<u>Zn</u>	<u>Ti</u>	<u>V</u>	<u>Zr</u>
0.62	0.34	0.21	0.11	0.84	0.07	0.07	0.01		

*This Material is Made in Canada**This Material is RoHS Compliant*

This will certify that the material described herein has been inspected and tested in accordance with Signature Aluminum Canada's standard sampling and testing procedures or in accordance with the requirements of any specification forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgement form. No other warranties are applicable.

S. Mazzotta
Director of Quality
Signature Aluminum Canada Inc

ISO 9001/TS16949 Registered Company

Visit us at www.signaturealum.com

Rev A



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO36859**

Purchase Order Date 6/28/2017 9:09:50 AM

PO Print Date 7/11/2017

Page Number 1 of 2

Order From :
SIGNATURE ALUMINUM CANADA INC.
C/O/ T10322C
P.O. BOX 4488, STN A
TORONTO, ON M5W 4H1
CA

VC-BON001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

REVISED

Contact Name
Vendor Phone 905-427-6550

Ship To Contact
Ship To Phone
Ship Via: Yours ppd
Ship Acct:

Buyer
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	D2500-1-100P ✓ EXTRUDE AS PER DWG D2500 REV. H B163253 DIE # 897105-2 EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF TUBE MATERIAL MUST BE SMOOTH AND FREE FROM DEFECT SCRATCHES, NICKS, DENTS	Skidtube Extrusion ✓ 8/9/2017 Yes 8/9/2017			96.00 Each	\$31.18	\$2,993.22
Line Total:							\$2,993.22
2	71401-45 Procurement Quality Clauses A005 right of entry A012 chemical and physical test report A016 personnel qualification A017 raw material identification (as applicable) A026 certification of material conformance A041 quality management system A042 dart notification by supplier A043 retention of quality documents	PROCUREMENT QUALITY CLAUSES ✓ 8/9/2017 No 8/9/2017			1.00 ✓	\$0.00	\$0.00

*Rec'd 40 PC
Rec'd 45 SH*

AUG 16 2017

8017-89

Note:

7/11/2017

Carrier: MCGILLION
TRL
on 08/13/17

Shippers No: 033221
From: SIGNATURE ALUMINUM CANADA
1850 CLEMENTS ROAD
PICKERING ON L1W 3R8

Consigned To: DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
CANADA

S/O: 128641
Freight: Prepaid

No Pkgs	Description Of Articles	LTL Cls	Haz Mat	Net Kgs	Tare Kgs	Gross Kgs
2	Aluminum Lineal Shapes; Item 13515-A	60		277	14	291

2 TOTAL

277 14 291

Shipper, Per S1MASSEY
SIGNATURE ALUMINUM CANADA
1850 CLEMENTS ROAD
PICKERING ON L1W 3R8

CANADA

CARRIER AGENT				CONSIGNEE / CONSIGNATAIRE			
DATE	DAY	M	Y	DATE	DAY	M	Y
PER: PAR				PER: PAR			

Visit us at www.signaturealum.com

SIGNATURE ALUMINUM CANADA
1850 CLEMENTS ROAD
PICKERING ON L1W 3R8

ACCT# 46024

PACKING LIST DATE / DATE DU
08-13-17PACKING LIST NUMBER / N° DE
033221SALES ORDER NUMBER / N° DE COM
128641REFER TO
THESE NUMBERS ON
ALL CORRESPONDANCEREFEREZ-VOUS A CES
NUMEROUS POUR TOUTE
CORRESPONDANCE

TERMS / FREIGHT

PP

SHIP TO / EXPÉDIÉ À
DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
CANADA

PHONE: 613-632-5200

SOLD TO / VENDUE À

DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
CANADA

PHONE: 613-632-5200

LOCATION	TRAILER NUMBER / REMORQUE Nombre	SALESMAN / VENDEUR	CREDIT REP / REP DU CRÉDIT	SALES REP / REP. DES VENTES
PIC		042		R. BLAIS
JOB / FICHIER		FIELD SALES REP / REP REGIONAL DES VENTES		CUST SERVICE REP / REP. SERVICE CLIENTELE
		G.ATTENBOROU		S1S

CUSTOMER PO NUMBER / CLIENT PO Nombre

PO36859

BILL OF LADING NUMBER / NO. DE CONNAISSEMENT

033221

CARRIER / TRANSPORTEUR
MCGILLION

G.ATTENBOROU

S1S

ITEM NO. / JMÉRO	ORIGINAL ORDER QUANTITY / Quantité d'ordre ORIGINAL	UNIT / UNITÉ	PREVIOUS SHIPPED QUANTITY / PRÉCÉDENT Quantité livrée	MFG. PART NUMBER / MFG. PARTIE NUMÉRO	ALLOY & TEMPER / ALLIAGE & TEMPER	FINISH DESCRIPTION / DESCRIPTION DE FINITION	NBR OF PKGS / NBR DE PKGS	GROSS LBS / LIVRES BRUT	NET QUANTITY / QUANTITÉ NETTE	UNIT / UNITÉ	QUANTITY DUE / Quantité en raison
001	1,354	LB		DAA-897105-3	6061 T6		2	642	611	LB	
	614	KG		D2500-1-100	100.0000 IN			291	277	KG	
Y	96	PC			Cut(+): 0.1180 Cut(-): 0.0000	Min: -10 % Max: 10 %			45	PC	
						885973 / 380497	1	328	313		23 PC
						885973 / 380498	1	313	298		22 PC

AUG 16 2017

Page 1 of 1

2	642	611	LB
	291	277	KG
		45	PC
TOTALS			

DATE OF DELIVERY

DRIVER

Transportation/Traffic damages and/or shortage claims are to be noted on the delivery copy of sellers shipping packing lists and signed and dated below by customers authorized representatives.
No return materials will be accepted for credit without permission. The articles and/or services covered by this shipping packing list were produced in accordance with the fair labor standards act of 1993 as amended. Order accepted subject to the terms and conditions stated on the reverse side.

CUSTOMER ACKNOWLEDGEMENT OF GOODS DELIVERED AND CONDITION